

Sub 11  
C'cont  
43. A two-part tooth whitening system according to claim 39 wherein the hydrogen peroxide is present at a concentration between about 3 percent by weight to about 15 percent by weight.

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### REMARKS

Claims 1-5 and 7-13 were pending in this application. Applicants herein cancel claims 1-5 and 7-13, and add new claims 25-43. Applicant cancels these claims without prejudice and reserves the right to pursue the canceled claims in a divisional or continuation application. New claims 25-43 add no new matter and support for the new claims may be found in the originally filed claims and throughout the specification as filed.

### Rejections Under 35 USC § 102(b) and § 103(a)

In the 26 April 2002 Office Action, the Examiner rejected claims 1, 3, 4, 5, 7 and 9 under 35 USC § 102(b) as anticipated by or, in the alternative, obvious under 35 USC § 103(a) over each of Lutz et al., Murayama (I-II), Pellico, Kibbel et al., Peterson, and Montgomery (I-II) by themselves, and further in view of Mehaffey regarding the transparent nature of Carbopol™ and regarding a “benzophenone photoactivating component, as u/v light absorber.” (Office Action, page 2).

The Examiner rejected claims 2 and 10-13 under 35 USC § 103(a) as obvious over any one of Lutz et al., Kibbel et al. or Peterson, taken with Mehaffey; and any one of Hermont et al., Heffner et al. (I-II), Speakman, and Unilever (I).

Although Applicants have canceled claims 1-5 and 7-13, thereby obviating the Examiner's rejections, Applicants nevertheless argue that the canceled claims are patentable over the prior art for the same reasons stated herein for the new claims. Applicants submit that the new claims avoid the rejections raised against claims 1-5 and 7-13.

To establish a prima facie case of anticipation under 35 USC § 102(b), a single reference must disclose each and every element of the claimed invention, arranged as in the claim.

*Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452 (Fed. Cir. 1984).

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not be based on Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

**Lutz et al.**

Applicants submit that the Examiner has failed to establish a prima facie case of anticipation or obviousness based upon the Lutz et al. reference.

Lutz et al. does not disclose each and every element of the claimed invention, arranged as in the claim. Lutz et al. discloses peroxide compositions with anionic or nonionic surfactants with water dispersible copolymers of an alpha-beta monoolefinically unsaturated lower aliphatic carboxylic acid crosslinked with a polyether of certain specified alcohols. Lutz et al. does not disclose a two-part composition comprising a metal ion chelator which, when placed on a tooth surface, becomes an activator that is capable of facilitating tooth whitening, wherein the first part also comprises a pH-adjusting agent, and a second part comprising hydrogen peroxide. As to obviousness, the Lutz et al. reference does not disclose each and every claim limitation, arranged as in the claim. Applicants submit that the Examiner has not indicated any passage in Lutz et al., or any in other reference, where the motivation to combine Lutz et al. with any other cited reference is stated. Accordingly, Applicants request that all rejections based on Lutz et al. be reconsidered and withdrawn.

### **Murayama I**

Applicants submit that the Examiner has failed to establish a prima facie case of anticipation or obviousness based upon the Murayama I (US 5,122,365) reference.

Murayama I does not disclose each and every element of the claimed invention, arranged as in the claim. Murayama I discloses a three-component system and method for whitening teeth. Although Murayama discloses a hydrogen peroxide-containing bleaching gel, Murayama discloses pre-treating the teeth with an acidic solution to bring the pH of the teeth down, and discloses application of a hydrogen peroxide preparation at pH 3-6 to teeth so treated (see Murayama I, col. 3 lines 48-55; col. 4 lines 47-52) or pH 2-7 (col. 4 lines 60-62) or pH 3.5 (col. 5 lines 41-44; col. 8 lines 40-41). Murayama I does not disclose a two-part composition comprising an alkaline first part comprising a metal ion chelator which, when placed on a tooth surface, becomes an activator that is capable of facilitating tooth whitening, wherein the first part also comprises a pH-adjusting agent, and a second part comprising hydrogen peroxide. As to obviousness, the Murayama I reference does not disclose each and every claim limitation. Applicants submit that the Examiner has not indicated any passage in Murayama I or any in other reference, where the motivation to combine Murayama I with any other cited reference is stated. Accordingly, Applicants request that all rejections based on Murayama I be reconsidered and withdrawn.

### **Murayama II**

Applicants submit that the Examiner has failed to establish a prima facie case of anticipation or obviousness based upon the Murayama II (US 5,401,495) reference.

Murayama II does not disclose each and every element of the claimed invention, arranged as in the claim. Like Murayama I, Murayama II neither anticipates nor renders obvious the present invention, for the reasons stated above for Murayama I. Murayama II does not disclose a two-part composition comprising an alkaline first part comprising a metal ion chelator which,

when placed on a tooth surface, becomes an activator that is capable of facilitating tooth whitening, wherein the first part also comprises a pH-adjusting agent, and a second part comprising hydrogen peroxide. As to obviousness, the Murayama II reference does not disclose each and every claim limitation. Applicants submit that the Examiner has not indicated any passage in Murayama II or any in other reference, where the motivation to combine Murayama II with any other cited reference is stated. Accordingly, Applicants request that all rejections based on Murayama II be reconsidered and withdrawn.

### **Pellico**

Applicants submit that the Examiner has failed to establish a prima facie case of anticipation or obviousness based upon the Pellico reference.

Pellico does not disclose each and every element of the claimed invention, arranged as in the claim. Pellico discloses particular anhydrous carbamide-peroxide containing compositions. Pellico does not disclose a composition comprising a metal ion chelator which, when placed on a tooth surface, becomes an activator that is capable of facilitating tooth whitening, wherein the first part also comprises a pH-adjusting agent, and a second part comprising hydrogen peroxide. As to obviousness, the Pellico reference does not disclose each and every claim limitation. Applicants submit that the Examiner has not indicated any passage in Pellico or any in other reference, where the motivation to combine Pellico with any other cited reference is stated. Accordingly, Applicants request that all rejections based on Pellico be reconsidered and withdrawn.

### **Kibbel et al.**

Applicants submit that the Examiner has failed to establish a prima facie case of anticipation or obviousness based upon the Kibbel et al. reference.

Kibbel et al. does not disclose each and every element of the claimed invention, arranged as in the claim. Kibbel et al. discloses gels of hydrogen peroxide up to 15% by weight having acrylic acid crosslinked with polyallyl sucrose and a neutralizing agent. Kibbel et al. does not

disclose does not disclose a two-part composition that comprises an alkaline first part comprising a metal ion chelator which, when placed on a tooth surface, becomes an activator that is capable of facilitating tooth whitening, wherein the first part also comprises a pH-adjusting agent, and a second part comprising hydrogen peroxide. As to obviousness, the Pellico reference does not disclose each and every claim limitation. Applicants submit that the Examiner has not indicated to the passage in Kibbel et al. or any in other reference, where the motivation to combine Kibbel et al. with any other cited reference can be found. Further, Applicants submit that the Examiner has not indicated any passage, in Kibbel et al. or in any other cited reference, where the motivation to combine Kibbel et al. with any cited reference is stated. Accordingly, Applicants request that all rejections based on Kibbel et al. be reconsidered and withdrawn.

#### **Peterson**

Applicants submit that the Examiner has failed to establish a prima facie case of anticipation or obviousness based upon the Peterson reference.

Peterson does not disclose each and every element of the claimed invention, arranged as in the claim. Peterson discloses detergent compositions having hydrogen peroxide and a thickener, with fluorescent whitening agents that absorb in the ultraviolet region and emit in the visible region, also containing chelating agents. Peterson does not disclose a composition comprising a metal ion chelator which, when placed on a tooth surface, becomes an activator that is capable of facilitating tooth whitening, wherein the first part also comprises a pH-adjusting agent, and a second part comprising hydrogen peroxide. As to obviousness, the Peterson reference does not disclose each and every claim limitation. Applicants submit that the Examiner has not indicated any passage in Peterson. or any in other cited reference, where the motivation to combine Peterson with any other cited reference is stated. Accordingly, Applicants request that all rejections based on Peterson be reconsidered and withdrawn.

### **Montgomery I**

Applicants submit that the Examiner has failed to establish a prima facie case of anticipation or obviousness based upon the Montgomery I (US 5,908, 614) reference.

Montgomery I does not disclose each and every element of the claimed invention, arranged as in the claim. Montgomery I does not disclose does not disclose a two-part composition that comprises an alkaline first part comprising a metal ion chelator which, when placed on a tooth surface, becomes an activator that is capable of facilitating tooth whitening, wherein the first part also comprises a pH-adjusting agent, and a second part comprising hydrogen peroxide. As to obviousness, Applicants submit that the Examiner has not indicated where in the Montgomery I reference each and every claim limitation can be found. Applicants submit that the Examiner has not indicated any passage in Montgomery I, or any in other cited reference, where the motivation to combine Montgomery I with any other cited reference is stated. Accordingly, Applicants request that all rejections based on Montgomery I be reconsidered and withdrawn.

### **Montgomery II**

Applicants submit that the Examiner has failed to establish a prima facie case of anticipation or obviousness based upon the Montgomery II (US 5,922,307) reference.

Montgomery II does not disclose each and every element of the claimed invention, arranged as in the claim. Montgomery II does not disclose does not disclose a two-part composition that comprises an alkaline first part comprising a metal ion chelator which, when placed on a tooth surface, becomes an activator that is capable of facilitating tooth whitening, wherein the first part also comprises a pH-adjusting agent, and a second part comprising hydrogen peroxide. As to obviousness, Applicants submit that the Examiner has not indicated where in the Montgomery II reference each and every claim limitation can be found. Applicants submit that the Examiner has not indicated to the passage in Montgomery II, or any in other cited

reference, where the motivation to combine Montgomery II with any other cited reference is stated. Accordingly, Applicants request that all rejections based on Montgomery II be reconsidered and withdrawn.

**Mehaffey**

Applicants submit that the Examiner has failed to establish a prima facie case of anticipation or obviousness based upon the Mehaffey reference.

Mehaffey does not disclose each and every element of the claimed invention, arranged as in the claim. Mehaffey discloses transparent compositions having gaseous bodies suspended therein, having polymers comprised of cross-linked interpolymers of mono-olefinic materials with polyunsaturated cross-linking agents having a plurality of polymerizable vinyl or crotyl groups (Mehaffey, col. 5 lines 53-65). The polymers comprise carboxylic acid moieties (col. 6 line 1), and ultra-violet absorbers that are highly fluorescent in the uv range or from 2,000 to 3,600 Angstroms (col. 7 lines 48-50). Mehaffey does not disclose a two-part composition that comprises an alkaline first part comprising a metal ion chelator which, when placed on a tooth surface, becomes an activator that is capable of facilitating tooth whitening, wherein the first part also comprises a pH-adjusting agent, and a second part comprising hydrogen peroxide. As to obviousness, Applicants submit that the Examiner has not indicated where in the Mehaffey reference each and every claim limitation can be found. Applicants submit that the Examiner has not indicated the passage in Mehaffey, or any in other cited reference, where the motivation is stated to combine Mehaffey with any other cited reference. Accordingly, Applicants request that all rejections based on Mehaffey be reconsidered and withdrawn.

**Hermant et al. (35 USC § 103(a) only)**

Applicants submit that the Examiner has failed to establish a prima facie case of obviousness based upon the Hermont et al. reference.

Hermant et al. does not disclose each and every element of the claimed invention. Hermant et al. discloses fabric bleaching compositions comprising certain metals with poly-

dentate ligands wherein the ligands contain at least 6 hetero-atoms. Hermant et al. does not disclose a two-part composition that comprises an alkaline first part comprising a metal ion chelator which, when placed on a tooth surface, becomes an activator that is capable of facilitating tooth whitening, wherein the first part also comprises a pH-adjusting agent, and a second part comprising hydrogen peroxide. As to obviousness, Applicants submit that the Examiner has not indicated where in the Montgomery I reference each and every claim limitation can be found. Applicants submit that the Examiner has not indicated any passage in Montgomery I, or any in other reference, where the motivation to combine Montgomery I with any other cited reference is stated. Accordingly, Applicants request that all rejections based on Hermant et al. be reconsidered and withdrawn.

**Heffner et al. I (35 USC § 103(a) only)**

Applicants submit that the Examiner has failed to establish a prima facie case of obviousness based upon the Heffner et al. I (US 5,437,686) reference.

Heffner I does not disclose each and every element of the claimed invention. Heffner et al. I discloses certain peroxygen compounds with bicyclic or tricyclic diketones as activators. Heffner et al. I does not disclose comprising a two-part composition that comprises an alkaline first part comprising a metal ion chelator which, when placed on a tooth surface, becomes an activator that is capable of facilitating tooth whitening, wherein the first part also comprises a pH-adjusting agent, and a second part comprising hydrogen peroxide. Further, Applicants submit that the Examiner has not indicated any passage, in Heffner et al. I or any other cited reference, in which the motivation is stated to combine Heffner et al. I with any other cited reference. Accordingly, Applicants request that all rejections based on Heffner et al. I be reconsidered and withdrawn.

**Heffner et al. II (35 USC § 103(a) only)**

Applicants submit that the Examiner has failed to establish a prima facie case of obviousness based upon the Heffner et al. II (US 5,437,686) reference.

Heffner II does not disclose each and every element of the claimed invention. Heffner et al. II discloses similar peroxygen compounds with bicyclic or tricyclic diketones as activators as in Heffner et al. I. Heffner et al. II does not disclose a two-part composition that comprises an alkaline first part comprising a metal ion chelator which, when placed on a tooth surface, becomes an activator that is capable of facilitating tooth whitening, wherein the first part also comprises a pH-adjusting agent, and a second part comprising hydrogen peroxide. Further, Applicants submit that the Examiner has not indicated any passage, in Heffner et al. II or any other cited reference, in which the motivation is stated to combine Heffner et al. II with any other cited reference. Accordingly, Applicants request that all rejections based on Heffner et al. II be reconsidered and withdrawn.

**Speakman (35 USC § 103(a) only)**

Applicants submit the Examiner has failed to establish a prima facie case of obviousness based upon the Speakman reference.

Speakman does not disclose each and every element of the claimed invention. Speakman discloses photoactivated compositions and methods for bleaching textiles, wherein the compositions are one-part compositions. Speakman does not disclose a two-part composition that comprises an alkaline first part comprising a metal ion chelator which, when placed on a tooth surface, becomes an activator that is capable of facilitating tooth whitening, wherein the first part also comprises a pH-adjusting agent, and a second part comprising hydrogen peroxide. Further, Applicants submit that the Examiner has not indicated which passage, in Speakman or any other reference, the motivation is stated to combine Speakman with any other cited reference. Accordingly, Applicants request that all rejections based on Speakman be reconsidered and withdrawn.

**Unilever I (35 USC § 103(a) only)**

Applicants submit the Examiner has failed to establish a prima facie case of obviousness based upon the Unilever I reference.

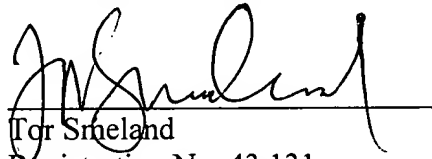
Unilever I does not disclose each and every element of the claimed invention. Unilever I discloses compositions having bleaching agents containing polyacrylate and azole co-structurants with peracids or peroxyacids as sources of hydrogen peroxide (see Unilever I, pages 6, 7, 14, and 16-17). Unilever I does not disclose a two-part composition that comprises an alkaline first part comprising a metal ion chelator which, when placed on a tooth surface, becomes an activator that is capable of facilitating tooth whitening, wherein the first part also comprises a pH-adjusting agent, and a second part comprising hydrogen peroxide. Further, Applicants submit that the Examiner has not indicated which passage in Unilever I, or any other reference, the motivation is stated to combine Unilever I with any other cited reference. Accordingly, Applicants request that all rejections based on Unilever I be reconsidered and withdrawn.

### **Conclusion**

In light of Applicants' amendments and remarks, Applicants respectfully submit that this application is in condition for further examination or allowance. If there are any questions or comments relating to the present application, the Examiner is respectfully invited to contact Applicants' attorney at the telephone number below. No fee, other than the fees for the three-month extension of time and the fee for the RCE, is believed to be necessary. If any additional fee is required, or overpayment has been made, please charge or credit our Deposit Account No. 11-0171 for such sum.

Respectfully submitted,

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